

ABSTRACT OF THE DISCLOSURE

A corneal surgery apparatus capable of irradiating a laser beam at a desired position on a cornea more accurately. The apparatus has an optical system for irradiating a laser beam onto a cornea, a unit which moves an irradiation position of the beam relative to an eye, a unit having an element for picking up an image of an anterior-segment, which processes an image signal from the element to detect a characteristic point in the image, a unit which stores positional information on the characteristic point when the eye is in a predetermined reference state, a unit which detects duction condition of the eye based on positional information on the characteristic point when the eye is in a surgery state and that being stored, and a unit which controls the moving unit based on a detection result of the duction detection unit.